

CURRICULUM VITAE

JAMES FOULDS

EDUCATION

Ph.D.	2014	University of California, Irvine, Computer Science
M.S. (First Class Honours)	2008	University of Waikato, Computer Science
B.C.M.S. (First Class Honours)	2006	University of Waikato, Artificial Intelligence

Experience in Higher Education

2023 – present	University of Maryland, Baltimore County, Associate Professor, Information Systems
2017 – 2023	University of Maryland, Baltimore County, Assistant Professor, Information Systems
2015 – 2017	University of California, San Diego, Postdoctoral Scholar, ITA Data Science Fellow
2016 – 2017	University of California, San Diego, Lecturer, Computer Science and Engineering
2014 – 2015	University of California, Santa Cruz, Postdoctoral Scholar, Comp. Sci. and Eng.
2008 – 2014	University of California, Irvine, Research Assistant, Computer Science
2008 – 2008	University of Waikato, Research Assistant, Computer Science
2006 – 2006	University of Waikato, Research Assistant, Computer Science
2005 – 2007	University of Waikato, Teaching Assistant, Computer Science and Philosophy
2003 – 2005	University of Waikato, Research Assistant, Computer Science

Experience in Other than Higher Education

2013 – 2013	Yahoo Labs, Research Intern
2006 – 2007	University of Waikato, Software Engineer on the WEKA data mining system
2006 – 2007	University of Waikato, Software Engineer on a Turing machine teaching tool

Honors Received

2023	Top Reviewer, AISTATS 2023
2022	Top Reviewer, AISTATS 2022
2021	NSF CAREER Award
2020	Top Reviewer, NeurIPS 2020 (awarded free registration)
2019	Top Reviewer, NeurIPS 2019 (awarded free registration)
2016	Best Presentation runner-up, Southern California Machine Learning Symposium
2008	Dean's Fellowship, UC Irvine ICS, \$18,000 USD + 1st year tuition fees
2007	Master's Research Scholarship, University of Waikato, \$12,000 NZD
2007	SCMS Scholarship, University of Waikato, \$3000 NZD
2006	Ramanujan Centenary Prize, University of Waikato School of Computing and Mathematical Sciences, for best overall performance in the BCMS degree
2006	Best Honours Project Award, University of Waikato, Department of C.S.
2006	Prior Society Prize in Philosophy, Runner up, highly commended, U. Waikato
2006	New Zealand Computer Society Level 3 Tertiary Scholarship, \$2500 NZD

2006	Honours Study Award, University of Waikato SCMS, \$3000 NZD
2005	2nd in New Zealand/10th in Australasia, ACM S. Pacific Programming Contest
2002	Entrance Scholarship, U. Waikato Dept. of C. S., covered 1st year tuition fees

Research Support and/or Fellowships

Proposals Under Submission

2023 – 2024	\$1,000,000, National Science Foundation (NSF) (UMBC's share: \$30,000), National Science Foundation (NSF), PI: George Redmond. UMBC sub-award PI: Mohamed Younis, Co-PIs: James Foulds , Justin Brooks, <i>NSF Engines Type: 1 Proposal: Center for Artificial Intelligence to Eliminate Health Disparities</i>
2023 – 2027	\$1,200,000, National Science Foundation (NSF), PI: Nirmalya Roy, CoPIs: James Foulds , Elizaeth Galik, Sarah Holmes, <i>SCH: GDRSense: Robust Sensing and Fair Predictive Models for Psychotropic Medication Management</i>

Awarded Grant Proposals

2021 – 2025	\$567,095, National Science Foundation (NSF), PI: James Foulds , <i>CAREER: Fair Artificial Intelligence for Intelligent Humans: Removing the Barriers to Deployment of Fair AI Technologies</i>
2019 – 2022	\$604,398, National Science Foundation (NSF), PI: Hamed Pirsiavash, CoPIs: Frank Ferraro, Cynthia Matuszek, Naghmeh Karimi, Damian Doyle, Senior Personnel: James Foulds , et al., <i>MRI, Acquisition of a Heterogeneous GPU Cluster to Facilitate Deep Learning Research at UMBC</i>
2019 – 2022	\$297,928, National Science Foundation (NSF), PI: James Foulds ; coPIs: Shimei Pan, Ian Stockwell, <i>AI-DCL: Fairness for the Allocation of Healthcare Resources</i>
2019 – 2019	\$50,000, National Science Foundation (NSF) OAC, PI: Shimei Pan; CoPIs: James Foulds ; Vandana Janeja, <i>Workshop on Including Ethics in Data Science Pedagogy</i>
2019 – 2022	\$174,869, National Science Foundation (NSF), PI: James Foulds , <i>CRII: RI: A Little Uncertainty is Good for Everyone: Bayesian Models for Fairness, and Fairness for Bayesian Models</i>
2018 – 2020	\$101,402, National Institute of Standards (NIST) MSE 60NANB18D227, PI: James Foulds ; coPI: Shimei Pan, <i>Differential Fairness for Artificial Intelligence and Machine Learning Systems: Unbiased Decisions with Biased Data</i>

Consultant Roles for Grants

2020 – 2022	\$2,400,000, National Science Foundation (NSF), PIs: D. W. Rice, R. Richardson, L. Hatley, K.E. Freeman, C. Winston-Proctor, Consultants: James Foulds and Shimei Pan, <i>HBCU-UP Broadening Participation Research Center</i>
2020 – 2022	\$49,511, Maryland Center for Computing Education (MCCE), PIs: P.A. Young, D. Kariuki, Consultant: James Foulds , <i>Exploring Computational Thinking with Preservice Teachers & Teacher Education Instructors</i>

Ph.D. Students

Graduated Ph.D. Advisees (Primary Advisor)

- Rashidul Islam (Spring 2018 – Spring 2022). Passed final defense 6.16.2022 (chair). Passed proposal exam Spring 2021. Passed comprehensive exam Fall 2019. Thesis title: “Intersectional Fairness in Machine Learning: Measurements, Algorithms, and Applications”
 - *IS Department Student Research Symposium (formerly known as Graduate Student Poster Day) Awards 2022: Overall winner, PhD Student Research Award (completed dissertation proposal category).*
 - *IS Department Graduate Student Poster Day Awards 2021: Overall winner, PhD Student Research Award (completed dissertation proposal category).*

- *IS Department Graduate Student Poster Day Awards 2021: 1st place, Poster Competition (completed research category).*

Current Ph.D. Advisees (Primary Advisor)

- Aryeh Englander (Summer 2022 – present)
- Alden Dima (Summer 2022 – present) Passed comprehensive exam before joining my lab.
- Kiran Prabhu (Fall 2021 – present)
- Mahbub Rahman (Summer 2019 – present) Passed comprehensive exam Spring 2021.
 - *IS Department Graduate Student Poster Day Awards 2021: 1st-equal, audience choice in the Poster Competition (late breaking research category).*
 - *IS Department Graduate Student Poster Day Awards 2021: Honorable mention, Poster Competition (late breaking research category).*
- Kamrun Naher Keya (Spring 2018 – present) Passed comprehensive exam Fall 2020.
 - *IS Department Graduate Student Poster Day Awards 2021: 1st equal, audience choice in the Poster Competition (completed research category)*

Current Ph.D. Co-Advisees

- Pronob Barman (Spring 2023 – present)
- Samin Semsar (Fall 2022 – present) Independent study Fall 2022. Primarily advised by Sreedevi Sampath.
- Fatema Hasan (Spring 2021 – present) Primary advisor: Shimei Pan. Passed proposal defense 3.28.2022

Former Ph.D. Co-Advisees

- Ziqian Zeng (Fall 2019 – Fall 2020) HKUST Ph.D. student who visited Shimei Pan's lab. I was an informal co-mentor, not on committee. Graduated HKUST 2021
- Jack Shan (Spring 2019 – present) Formerly primary advisor (UMBC): Shimei Pan. Now at Temple University. Informal co-mentor, not currently on committee.

Former Ph.D. Advisees

- Masnoon Nafees (Fall 2019 – 2021). Passed comprehensive exam Spring 2021.

Ph.D. Committee Member

- Muhammad Hasan Ferdous, comprehensive, 3.13.2023
- Homayra Alam, comprehensive, 3.10.2023
- Xingyan Li, comprehensive, 3.8.2023
- Maryam Alomair, comprehensive, 3.7.2023
- Omar Faruque, comprehensive, 3.3.2023
- Munshi Mahbubur Rahman, proposal, 10.31.2022 (**chair**)
- Catherine Ordun, proposal, 10.7.2022
- Jal Irani, comprehensive exam (scheduled, postponed)
- Khondoker Hossain, proposal 9.21.2022
- Xin Huang, proposal 9.1.2022
- Tashnim Chowdhury, proposal 7.6.2022
- Rashidul Islam (**chair**), final defense 6.16.2022, proposal defense 5.5.2021
- Abu Zaher Md Faridee, final defense 6.2.2022, proposal defense 4.28.2021
- Neha Singh, final defense 5.27.2022, proposal defense 10.29.2020, comprehensive exam 10.24.2018
- Manish Pillai, final defense 4.27.2022
- Fatema Hasan, proposal defense 3.28.2022
- Antonios Xenakis, comprehensive exam 2nd attempt 3.11.2022, comprehensive exam 10.1.2021
- Seraj Mostafa, comprehensive exam 3.4.2022
- Redwan Walid, proposal 12.6.2021, comprehensive exam 10.6.2020
- Arpita Roy, final defense 7.22.2021, proposal defense 12.3.2019
- Pei Guo, final defense 5.10.2021, proposal defense 12.16.2019

- Neil Kpamegan, comprehensive exam 2nd attempt 3.8.2021, comprehensive exam 9.29.2020
- Wenbin Zhang, final defense 10.8.2020, proposal defense 11.11.2019
- Isıl Doga Yakut Kılıç, proposal defense 2.7.2020
- Nilavra Pathak, final defense 4.26.2019, proposal defense 11.15.2017
- H M Sajjad Hossain, final defense 4.25.2019, proposal defense 11.27.2017
- Timothy Casey, comprehensive exam 10.11.2018
- Bipendra Basnyat, comprehensive exam 10.5.2018

Master's Students

Graduated M.S. Thesis Advisees (Primary Advisor)

- Ketki Deshpande, MS thesis defense 4.16.2020 (chair)

M.S. Thesis Committee Member

- Indrajeet Ghosh, M.S. thesis defense 5.26.2020

M.S. Independent Study Advisees

- Josna Chandramohan (Independent Study, Spring 2022)
- Krishna Patel (Independent Study, Spring 2021)
- Dharmil Shah (Independent Study, Spring 2021)
- Sambhaw Sharma (Independent Study, Spring 2021)
- Pranvat Singh (Independent Study, Spring 2021)
- Akarshika Singhal (Independent Study, Fall 2020. Research volunteer Spring 2021)
- Nishigandha Karle (Independent Study, Fall 2020)
- Ninad Sawant (Independent Study, Fall 2020)
- Vamshi Yenmangandla (Independent Study, Fall 2020)
- Vibhor Dharmadhikari (Independent Study, Spring 2020)
- Pranali Kulkarni (Independent Study, Spring 2020)
- Neeharika Kusampudi (Independent Study, Spring 2020)
- Kamlesh Pai (Independent Study, Spring 2020)
- Harish Ramamoorthy (Independent Study, Spring 2020)
- Ashwathy Sureshkumar (Independent Study, Spring 2020)
- Priyanka Jadhav (Independent Study, Fall 2019)
- Taif Ghiwaa (Independent Study, Spring 2018)
- Divya Kavaturi (Independent Study, Spring 2018)

Undergraduate Students

Current Undergraduate Advisees

- Shaniah Reece (Fall 2022 – present), Independent Study Fall 2022
 - *Winner of the Center for Women in Technology (CWIT) Student Professional Excellence Award, UMBC, 2023*
 - *Winner of a UMBC Center for Women in Technology (CWIT) Cyber-Scholar Program Scholarship. Cyber Scholars are awarded \$5,000-\$15,000 per year for 4 years.*
- Anthony Rivera (Fall 2021 – present). Independent Study Spring 2022, Undergraduate Research Award (URA) mentor
 - *Winner of a UMBC Undergraduate Research Award (URA) supporting his work with me from Sept 2022 – Sept 2023, \$1,500. Project: Fair needs-based ranking of the Medicaid Waitlist.*
 - *Winner of the Student Leadership Award, College of Engineering and Information Technology (COEIT), UMBC, 2022. (This is a college-level award. He was the winner for the Department of Information Systems.)*

Former Undergraduate Advisees

- Jordan Troutman (Spring 2019 – 2021). Research mentor, Undergraduate Research Award (URA) mentor
 - *Winner of the Knight-Hennessy Scholarship to attend the Stanford Ph.D. program*
 - *Winner of the Goldwater Scholarship*
 - *Winner of a UMBC Undergraduate Research Award (URA), supporting his work with me from June 2019 – May 2020, \$1,500. Project: A Fair Evaluation of the Effectiveness of the Violence Risk Appraisal Guide.*
- Syeda Fatima (Fall 2019), Independent Study
- Nithya Prakash (Spring 2019), CWIT Cyber-Scholar mentor
 - *Winner of a UMBC Center for Women in Technology (CWIT) Cyber-Scholar Program Scholarship. Cyber Scholars are awarded \$5,000-\$15,000 per year for 4 years.*

High-School Students

Current High-School Mentees

Gavin Tantleff (Summer 2022 – Summer 2023) Baltimore Polytechnic Institute (BPI) Ingenuity Research Practicum Program

Former High-School Mentees

Elyjah Bassford (Summer 2020 – Summer 2021) Baltimore Polytechnic Institute (BPI) Ingenuity Research Practicum Program

PUBLICATIONS, PRESENTATIONS, AND CREATIVE ACHIEVEMENTS

Publications

Peer-Reviewed Works

Peer-Reviewed Conference Papers

- M. A. Khan, N. Ahmed, J. Padela, , M. S. Raza, A. Gangopadhyay, J. Wang, J. R. Foulds, C. Busart, R. F. Erbacher. Flood-ResNet50: Optimized Deep Learning Model for Efficient Flooded Detection on Edge Device. In *Proceedings of the 22nd International Conference on Machine Learning and Applications (ICMLA)*, 2023.
- P. G. Feldman, S. Pan, and J. R. Foulds. The Keyword Explorer Suite: A toolkit for understanding online populations. In *Companion Proceedings of the 28th International Conference on Intelligent User Interfaces (IUI), IUI '23 Companion*, 2023. **(Main conference acceptance rate 24%)**
- C. Wang, K. Wang, A. Bian, R. Islam, K. N. Keya, J. Foulds, and S. Pan. Do humans prefer debiased AI algorithms? A case study in career recommendation. *27th Annual Conference on Intelligent User Interfaces (IUI)*, 2022. **(Acceptance rate 24.5%)**
- S. Ali, S. A. M. Mostafa, X. Li, S. Khanjani, J. Wang, J. Foulds, and V. Janeja. Benchmarking probabilistic machine learning models for Arctic sea ice forecasting. *International Geoscience and Remote Sensing Symposium (IGARSS)*, 2022.

- R. Islam, K.N. Keya, Z. Zeng, S. Pan, and J. R. Foulds. Debiasing career recommendations with neural fair collaborative filtering. In *Proceedings of The Web Conference (WWW 2021)*, ArXiv preprint arXiv:2009.08955v1 [cs.IR], 2021. (**Acceptance rate 20.6%**)
- R. Islam, S. Pan, and J. R. Foulds. Can we obtain fairness for free? *Proceedings of the Fourth AAAI / ACM Conference on Artificial Intelligence, Ethics, & Society (AIES)*, 2021. (**Acceptance rate 37.3%**)
- K.N. Keya, R. Islam, S. Pan, I. Stockwell, and J. R. Foulds. Equitable allocation of healthcare resources with fair survival models. In *Proceedings of the 2021 SIAM International Conference on Data Mining (SDM 2021)*, SIAM, 2021. (**Acceptance rate 21.25%**)
- Z. Zeng, R. Islam, K. Keya, J. Foulds, Y. Song, and S. Pan. Fair representation learning for heterogeneous information networks. *Proceedings of the 15th International AAAI Conference on Web and Social Media (ICWSM)*, arXiv Preprint arXiv:2104.08769v1 [cs.AI], 2021. (**Acceptance rate 20%**)
- K. Deshpande, S. Pan, and J. R. Foulds. Mitigating demographic bias in AI-based resume filtering. *Fairness in User Modeling, Adaptation and Personalization Workshop (FairUMAP 2020)*, Adjunct Publication of the 28th ACM Conference on User Modeling, Adaptation and Personalization, 2020.
- J. R. Foulds, R. Islam, K. Keya, and S. Pan. Bayesian modeling of intersectional fairness: The variance of bias. *SIAM International Conference on Data Mining (SDM)*, ArXiv preprint arXiv:1811.07255 [cs.LG], 2020. (**Acceptance rate 24%**)
- J. R. Foulds, R. Islam, K. Keya, and S. Pan. An intersectional definition of fairness. *36th IEEE International Conference on Data Engineering (ICDE)*, ArXiv preprint arXiv:1807.08362 [CS.LG], 2020. (**Typical acceptance rate 18%**)
- J. R. Foulds, M. Park, K. Chaudhuri, and M. Welling. Variational Bayes in private settings (VIPS) (extended abstract). *29th International Joint Conference on Artificial Intelligence and the 17th Pacific Rim International Conference on Artificial Intelligence (IJCAI-PRICAI 2020) Journal Track*, 2020. (**Invited to submit to IJCAI Journal Track by editors of JAIR and peer reviewed. Journal track acceptance rate unknown, main conference acceptance rate 12.4%**)
- R. Islam and J. R. Foulds. Scalable collapsed inference for high-dimensional topic models. In *Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, 2019. (**Long paper acceptance rate 26.3%**)
- N. Pathak, J. R. Foulds, N. Roy, N. Banerjee, and R. Robucci. A Bayesian data analytics approach to buildings' thermal parameter estimation. In *Proceedings of the Tenth ACM International Conference on Future Energy Systems (ACM e-Energy)*, 2019. (**Long paper acceptance rate 24.3%**)
- J. R. Foulds. Mixed membership word embeddings for computational social science. *Proceedings of the 21st International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2018. (**Acceptance rate 33.2%**)
- M. Park, J. R. Foulds, K. Chaudhuri, and M. Welling. DP-EM: Differentially private expectation maximization. *Proceedings of the 20th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2017. (**Acceptance rate 31.7%**)
- J. R. Foulds, J. Geumlek, M. Welling, and K. Chaudhuri. On the theory and practice of privacy-preserving Bayesian data analysis. In *Proceedings of the 32nd Conference on*

Uncertainty in Artificial Intelligence (UAI), 2016. (**Acceptance rate 31%**)

- Grycner, G. Weikum, J. Pujara, J. R. Foulds, and L. Getoor. RELLY: Inferring hypernym relationships between relational phrases. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 971–981, Lisbon, Portugal, September 2015. Association for Computational Linguistics. (**Long paper acceptance rate 26.2%**)
- S. Fakhraei, J. R. Foulds, M. Shashanka, and L. Getoor. Collective spammer detection in evolving multi-relational social networks. In *Proceedings of the 21st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2015. (**Acceptance rate 19.5%**)
- J. R. Foulds, S. H. Kumar, and L. Getoor. Latent topic networks: A versatile probabilistic programming framework for topic models. In *Proceedings of The 32nd International Conference on Machine Learning (ICML)*, 2015. (**Acceptance rate 26%**)
- X. He, T. Rekatsinas, J. R. Foulds, L. Getoor, and Y. Liu. HawkesTopic: A joint model for network inference and topic modeling from text-based cascades. In *Proceedings of the 32nd International Conference on Machine Learning (ICML)*, 2015. (**Acceptance rate 26%**)
- P. Kouki, S. Fakhraei, J. R. Foulds, M. Eirinaki, and L. Getoor. HyPER: A flexible and extensible probabilistic framework for hybrid recommender systems. In *Proceedings of the 9th ACM Conference on Recommender Systems (RecSys)*, 2015. (**Acceptance rate 21%**)
- A. Ramesh, S. H. Kumar, J. R. Foulds, and L. Getoor. Unsupervised models of aspect-sentiment for online course discussion forums. In *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2015. (**Long paper acceptance rate 25%**)
- D. Sridhar, J. R. Foulds, B. Huang, M. Walker, and L. Getoor. Joint models of disagreement and stance in online debate. In *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2015. (**Long paper acceptance rate 25%**)
- J. R. Foulds and P. Smyth. Annealing paths for the evaluation of topic models. In *Proceedings of the Thirtieth Conference Conference on Uncertainty in Artificial Intelligence (UAI)*, 2014. (**Acceptance rate 32%**)
- J. R. Foulds and P. Smyth. Modeling scientific impact with topical influence regression. In *Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 113–123, Seattle, Washington, USA, October 2013. Association for Computational Linguistics. (**Long paper acceptance rate 27%**)
- J. R. Foulds, L. Boyles, C. DuBois, P. Smyth, and M. Welling. Stochastic collapsed variational Bayesian inference for latent Dirichlet allocation. In *Proceedings of the 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, 2013. (**Acceptance rate 17.2%**)
- DuBois, J. R. Foulds, and P. Smyth. Latent set models for two-mode network data. In *Proceedings of the 5th International AAAI Conference on Weblogs and Social Media (ICWSM)*, 2011. (**Acceptance rate 20%**)
- J. R. Foulds, A. Asuncion, C. DuBois, C. T. Butts, and P. Smyth. A dynamic relational infinite feature model for longitudinal social networks. In *Proceedings of the 14th International Conference on AI and Statistics (AISTATS)*, 2011. (**Recent acceptance rates between 28%–36%**)
- J. R. Foulds, N. Navaroli, P. Smyth, and A. Ihler. Revisiting MAP estimation, message passing and perfect graphs. In *Proceedings of the 14th International Conference on AI and*

Statistics (AISTATS), 2011. (**Recent acceptance rates between 28%–36%**)

- J. R. Foulds and P. Smyth. Multi-instance mixture models and semi-supervised learning. In *SIAM International Conference on Data Mining (SDM)*, 2011. (**Recent acceptance rates between 22%–29%**)
- J. R. Foulds and E. Frank. Speeding up and boosting diverse density learning. In *Proceedings of the 13th International Conference on Discovery Science (DS)*, 2010. (**Acceptance rate 51%**)
- J. R. Foulds and E. Frank. Revisiting multi-instance learning via embedded instance selection. In *Proc. 21st Australasian Joint Conference on AI (AI)*, 2008. (**Long paper acceptance rate 29%**)

Peer-Reviewed Journal Papers

- C. Wang, K. Wang, A. Y. Bian, R. Islam, K. N. Keya, J. R. Foulds, and S. Pan. When Biased Humans Meet Debiased AI: A Case Study in College Major Recommendation. *ACM Transactions on Interactive Intelligent Systems (TIIS)*, 13(3):17, 2023
- R. Islam, K. N. Keya, S. Pan, A. D. Sarwate, and J. R. Foulds. Differential fairness: An intersectional framework for fair AI. *Entropy*, 25(4):660, 2023.
- K. Keya, Y. Papanikolaou, and J. R. Foulds. Neural embedding allocation: Distributed representations of topic models. *Computational Linguistics*, 48 (4): 1021–1052, 2022.
- M. Park, J. R. Foulds, K. Chaudhuri, and M. Welling. Variational Bayes in private settings (VIPS). *Journal of Artificial Intelligence Research (JAIR)*, 68:109–157, 2020.
- J. T. Morton, A. Aksenov, L.-F. Nothias-Scaglia, J. R. Foulds, R. A. Quinn, M. H. Badri, T. L. Swenson, M. W. Van Goethem, T. R. Northen, Y. Vasquez-Beaza, M. Wang, N. A. Bokulich, A. Watters, S.-J. Song, R. Bonneau, P. C. Dorrestein, and R. Knight. Learning representations of microbe-metabolite interactions. *Nature Methods*, 2019.
- Y. Papanikolaou, J. R. Foulds, T. N. Rubin, and G. Tsoumakas. Dense distributions from sparse samples: Improved Gibbs sampling parameter estimators for LDA. *Journal of Machine Learning Research*, 18(62):1–58, 2017.
- J. R. Foulds and E. Frank. A review of multi-instance learning assumptions. *Knowledge Engineering Review*, 25(1), 2010.
- J. R. Foulds and L. R. Foulds. Bridge lane direction specification for sustainable traffic management. *Asia-Pacific Journal of Operational Research*, 23(2), 2006.
- J. R. Foulds and L. R. Foulds. A probabilistic dynamic programming model of rape seed harvesting. *International Journal of Operational Research*, 1(4), 2006.

Peer-Reviewed Workshop Papers (Competitive Peer-Review Process)

- P. Feldman, S. Tiwari, C. Cheah, J. R. Foulds, and S. Pan. Analyzing COVID-19 tweets with transformer-based language models. *Proceedings of the 6th International Workshop on Social Sensing (SocialSens 2021), an ICWM 2021 Full-Day Workshop, ArXiv preprint arXiv:2104.10259v3 [cs.CL]*, 2021.
- M. Nafees, S. Pan, Z. Chen, and J. R. Foulds. Impostor GAN: Toward modeling social media user impersonation with generative adversarial networks. *2nd International Workshop on Deceptive AI @ IJCAI 2021 (DeceptAI 2021)*, 2021.

- K. Keya, R. Islam, S. Pan, I. Stockwell, and J. R. Foulds. Equitable allocation of healthcare resources with fair Cox models. *AAAI Fall Symposium on AI in Government and Public Sector (AAAI FSS-20)*, 2020.
- J. R. Foulds, R. Islam, K. Keya, and S. Pan. Differential fairness. *NeurIPS 2019 Workshop on Machine Learning with Guarantees*, 2019.
- R. Islam, K. Keya, S. Pan, and J. R. Foulds. Mitigating demographic biases in social media-based recommender systems. *The 25th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) Social Impact Track (extended abstract)*, 2019.
- M. Park, J. R. Foulds, K. Chaudhuri, and M. Welling. Private topic modeling. *NIPS Workshop on Private Multi-Party Machine Learning (PMPML)*, 2016.
- Grycner, G. Weikum, J. Pujara, J. R. Foulds, and L. Getoor. A unified probabilistic approach for semantic clustering of relational phrases. In *4th Workshop on Automated Knowledge Base Construction (AKBC)*, 2014.
- D. Sridhar, J. R. Foulds, B. Huang, M. Walker, and L. Getoor. Collective classification of stance and disagreement in online debate forums. In *Bay Area Machine Learning Symposium (BayLearn)*, 2014.
- J. R. Foulds and D. Görür. Diverse personalization with determinantal point process eigenmixtures. In *NIPS Workshop on Personalization*, 2013.
- J. R. Foulds and P. Smyth. Robust evaluation of topic models. In *NIPS Workshop on Topic Models*, 2013.
- J. R. Foulds and P. Smyth. Modeling scientific impact with topical influence regression. In *NIPS Workshop on Algorithmic and Statistical Approaches for Large Social Network Data Sets*, 2012.

Peer-Reviewed Symposium Papers (Non-Competitive Peer Review Process)

- G. Shan, A. Roy, J. Foulds, and S. Pan. Causal feature selection with dimension reduction for interpretable text classification. *9th Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL 2022)*. *ArXiv preprint arXiv:2010.04609v1 [cs.LG]*, 2022.
- K. Deshpande, S. Pan, and J. R. Foulds. Mitigating socio-linguistic bias in job recommendation. *Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)*, 2020.
- M. Rahman and J. R. Foulds. End-to-end joint modeling for fake news detection. *Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)*, 2020.
- C. Wang, K. Wang, A. Bian, R. Islam, K. Keya, J. R. Foulds, and S. Pan. A user study on a de-biased career recommender system. *Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)*, 2020.
- T. Ghiwaa and J. R. Foulds. Training WGANs with peer instruction. In *Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)*, 2018.
- R. Islam and J. R. Foulds. Towards a highly efficient online inference algorithm for latent Dirichlet allocation. In *Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)*, 2018.

- K. Keya and J. R. Foulds. Neural embedding allocation: Distributed representations of words, topics, and documents. In *Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL)*, 2018.
- J. R. Foulds. Mixed membership word embeddings. In *SoCal Machine Learning Symposium (SCMLS)*, 2016.

Non-Peer-Reviewed Works

Journal Issues Edited, and Contributions Therein

- S. Pan and J. R. Foulds, editors. *Bulletin of the IEEE Technical Committee on Data Engineering*, volume 44(4). IEEE Computer Society, 2021.
- S. Pan and J. R. Foulds. Letter from the special issue editors. In S. Pan and J. R. Foulds, editors, *Bulletin of the IEEE Technical Committee on Data Engineering*, volume 44(4). IEEE Computer Society, 2021.
- J. R. Foulds and S. Pan, editors. *Bulletin of the IEEE Technical Committee on Data Engineering*, volume 43(4). IEEE Computer Society, 2020.
- J. R. Foulds and S. Pan. Are parity-based notions of AI fairness desirable? In J. R. Foulds and S. Pan, editors, *Bulletin of the IEEE Technical Committee on Data Engineering*, volume 43(4), pages 51–73. IEEE Computer Society, 2020.
- J. R. Foulds and S. Pan. Letter from the special issue editors. In J. R. Foulds and S. Pan, editors, *Bulletin of the IEEE Technical Committee on Data Engineering*, volume 43(4). IEEE Computer Society, 2020.

Public Testimonies

- V. Janeja and J.R. Foulds. Written testimony in support of Maryland house bill house bill 1132 state government – technology and science advisory commission– established, by Delegates Hill, Charles, Qi, Ruth, and Wu., 2023.
- V. Janeja and J. R. Foulds. Written testimony in support of Maryland house bill 1323, algorithmic decision systems – procurement and discriminatory acts, by Delegate Hill., 2021.

Non-Peer Reviewed Reports

- J. T. Morton, D. McDonald, A. Aksenov, L.-F. Nothias-Scaglia, J. R. Foulds, R. A. Quinn, M. H. Badri, T. L. Swenson, M. W. Van Goethem, T. R. Northen, Y. Vasquez-Beaza, M. Wang, N. A. Bokulich, A. Watters, S.-J. Song, R. Bonneau, P. C. Dorrestein, and R. Knight. Revisiting microbe-metabolite interactions: Doing better than random. *BioRxiv preprint*, DOI: <https://doi.org/10.1101/2019.12.10.871905>, 2019.

Theses

- J. R. Foulds. *Latent Variable Modeling for Networks and Text: Algorithms, Models and Evaluation Techniques*. PhD thesis, University of California, Irvine, 2014.
- J. R. Foulds. Learning instance weights in multi-instance learning. Master’s thesis, University of Waikato, Hamilton, New Zealand, 2008.

- J. R. Foulds. Learning to play the game of Go. Honours thesis, University of Waikato, Hamilton, New Zealand, 2006.

Works Submitted or in Preparation

Books

- Ian H. Witten, Eibe Frank, Mark A. Hall, Christopher J. Pal, and J. R. Foulds. *Data mining: practical machine learning tools and techniques (5th edition)*. Morgan Kaufmann / Elsevier, Cambridge, MA, 2023 (in preparation).

Peer-Reviewed Papers Submitted to Selective Conferences, with Publicly Available Preprints

- G. J. Cancro, S. Pan, and J. R. Foulds. Tell me something that will help me trust you: A survey of trust calibration in human-agent interaction. *ArXiv preprint arXiv:2205.02987 [cs.HC]*, 2022 (submitted for publication).
- P. G. Feldman, A. P. Dant, J. R. Foulds, and S. Pan. Polling latent opinions: A method for computational sociolinguistics using transformer language models. *ArXiv preprint arXiv:2204.07483 [cs.CL]*, 2022 (submitted for publication).
- R. Islam, S. Pan, and J. R. Foulds. Fair inference for discrete latent variable models. *ArXiv preprint arXiv:2209.07044v1 [cs.LG]*, 2022 (submitted for publication).
- F. Hasan, K. S. Xu, J. R. Foulds, and S. Pan. Learning user embeddings from temporal social media data: A survey. *ArXiv preprint arXiv:2105.07996v1*, 2021 (submitted for publication)

Peer-Reviewed Journal Papers

- C. Wang, K. Wang, A. Bian, R. Islam, K. N. Keya, J. Foulds, and S. Pan. When biased humans meet debiased AI: A case study in college major recommendation. *Under submission to ACM TiiS (accepted conditional on major changes)*, 2022 (submitted for publication).

Peer-Reviewed Symposium Papers

- K. Prabhu, S. Semsar, and J. R. Foulds. Simulation of a predictive policing model to corroborate the theory of discriminatory bias due to feedback loops, 2023 (submitted for publication).

Presentations

Conference/Poster Presentations (Juried/Refereed)

Note: All conference and workshop publications were presented at the event, either by myself or by a student co-author. This list contains additional invited presentations, and presentations accepted based on an abstract.

Presentations with Refereed Abstracts

- James Foulds and Shimei Pan. SDM 2023 tutorial: “How to Design a Fair Data Mining System: Navigating the Trade-Offs,” Minneapolis, MN, April 2023

- Kevin Xu and James Foulds. SDM 2021 tutorial: “*Mining Dynamic Networks with Generative Models,*” online presentation. (Previously accepted to SDM 2020 but cancelled due to COVID-19, re-reviewed and accepted at SDM 2021), May 2021
- V. Janeja (primary presenter), S. Pan, J. Foulds, L. Boot. UMBC Provost’s Teaching and Learning Symposium. Including Ethics in Data Science Pedagogy: Why, What and How?, UMBC, Sept. 2019
- J. T. Morton, A. Aksenov, R. Knight, S. J. Song, R. Bonneau (primary presenter), M. Badri, T. Northen, Marc Van Goethem, T. Swenson, R. Quinn, J. R. Foulds, L.-F. Nothias-Scaglia, P. Dorrestein. The 27th Conference on Intelligent Systems for Molecular Biology / the European Conference on Computational Biology (ISMB/ECCB) 2019 Abstracts. Identifying microbe-metabolite interactions with a compositional matrix factorization, July 2019
- Kevin Xu and James Foulds. ICWSM 2018 tutorial: Generative Models for Social Media Analytics: Networks, Text, and Time, Stanford, CA, June 2018

Conference/Poster Presentations (Non-Juried/Refereed)

Invited conference presentations

- James Foulds and Shimei Pan. Keynote talk: SIAM Data Mining (SDM 2023) workshop on Algorithmic Fairness in Artificial intelligence, Machine learning and Decision Making (AFair-AMLD 2023), “*Human-Centered Approaches to AI Fairness,*” Minneapolis, MN, April 2023
- Keynote Panel: “*Implementing Intersectionality in Algorithmic Fairness,*” ACM Conference on Fairness, Accountability, and Transparency (ACM, FAccT 2022), Seoul, South Korea (panel presentation), June 2022
- 2019 Advancing Ethical Research (AER) Conference, hosted by Public Responsibility in Medicine and Research (PRIM&R). Panelist/presenter in *From Fortnite to Facebook: Data Security and Breaches, Downstream Harms, and the (Precarious) Role of IRBs*, Boston, MA, Nov. 2019
- Workshop on Including Ethics in Data Science Pedagogy (EDSP 2019), panel moderator and presenter, Alexandria, VA, June 2019
- Kevin Xu and James Foulds. SBP-BRIMS 2016 invited tutorial: *Generative Models for Social Network Data*, UCDC, Washington DC, July 2016

Non-Refereed and Invited Presentations.

- Charissa Cheah and James Foulds. Presentation summarizing our report as subcommittee co-chairs for “*UMBC Bold: The Research Enterprise. A Campus Conversation,*” Research and Creative Achievement Council, UMBC, Oct. 2023
- Building Blocks: Big Data Policy, panelist, UMBC, Oct. 2023
- AI/ML PhD Student Open Seminar, *AI Fairness + Latent Variable Modeling + YOU!*, Department of Information Systems, UMBC, Oct. 2023

- Charissa Cheah and James Foulds. Session co-chair for “*UMBC Bold: The Research Enterprise. A Campus Conversation*,” Session 2 (online), UMBC, March 2023
- Oral testimony in support of Maryland house bill house bill 1132 state government – technology and science advisory commission – established, by Delegates Hill, Charles, Qi, Ruth, and Wu. Maryland General Assembly, Appropriations Committee (online testimony), March 2023
- Digital Health Disparities class, “*Algorithmic Bias and Healthcare*,” UMBC (guest lecture), March 2023
- Charissa Cheah and James Foulds. Session co-chair for “*UMBC Bold: The Research Enterprise. A Campus Conversation*,” Session 1 (in-person), UMBC, March 2023
- Information Theory and Applications (ITA) Workshop, “*Fair Inference for Discrete Latent Variable Models*,” San Diego, CA, Feb. 2023
- NSF CAREER Grant Workshop, CNMS & COEIT, UMBC, Jan. 2023
- BCH AI and Machine Learning Working Group, “*An Intersectional Definition of Fairness and Fair Allocation of Healthcare Resources*,” Boston Children’s Hospital, Boston, MA, Jan. 2023
- Ingenuity Project 10th Grade Speaker Series, “*Fairness and Bias in AI: How Can We Make Artificial Intelligence Work for Everyone?*,” Baltimore Polytechnic Institute, Baltimore, Nov. 2022.
- Department of Information Systems Advisory Board Meeting, “*Research in the Department: NSF CAREER Award*,” UMBC (online presentation), March 2022
- Digital Health Disparities class, “*Algorithmic Bias and Healthcare*,” UMBC (online guest lecture), March 2022
- Fika Faculty Research Presentation, “*Fairness and Bias in AI + Latent Variable Modeling*,” Department of Information Systems, UMBC (online talk), Feb. 2022
- UMBC / RHUL Research Catalyst Meeting, “*Fairness and Bias in AI + Latent Variable Modeling + YOU!*,” Royal Holloway, University of London (RHUL) and UMBC (online talk), Feb. 2022
- CAREER Award Panel, Department of Information Systems, UMBC (online panel presentation), Feb. 2022
- AI/ML PhD Student Open Seminar, *AI Fairness + Latent Variable Modeling + YOU!*, Department of Information Systems, UMBC, Oct. 2021
- Forbes Corridor Colloquia: Responsible AI, “*Responsible AI: How Can We Make Artificial Intelligence Work for Everyone?*,” online seminar series jointly hosted by the University of Pittsburgh & Carnegie Mellon University (online talk), Oct. 2021
- Center for Women in Technology (CWIT) Cyber Practicum, “*Fairness and Bias in AI: An Intersectional Approach*,” UMBC (online talk), Sept. 2021
- UMBC New Faculty Welcome Event, Faculty Development Center, UMBC (online panel presentation), Aug. 2021
- COEIT Social Responsibility Week, “*Socially Responsible Research*,” UMBC (online panel presentation), March 2021

- Oral testimony in support of Maryland House Bill 1323, Algorithmic Decision Systems – Procurement and Discriminatory Acts, by Delegate Hill. Maryland General Assembly, Health and Government Operations Committee (online testimony), March 2021
- AI/ML PhD Student Open Seminar, *AI Fairness + Latent Variable Modeling + YOU!*, Department of Information Systems, UMBC, Oct. 2020
- Leidos Innovations Center (LInC) AI/ML reading group meeting, Leidos, Arlington, VA (online talk), Oct. 2020
- Baltimore Polytechnic Institute Ingenuity Project Seniors, “*How to Make Machine Learning Work for Everyone*,” Baltimore, MD (online talk, presentation to high-school students in a research program), Oct. 2020
- Faculty Development Center (FDC) *Workshop on Concept Mapping* (presenter), UMBC, Feb. 2020
- AI/ML PhD Student Open Seminar, *Latent Variable Modeling + AI Fairness + YOU!*, Department of Information Systems, UMBC, Oct. 2019
- National Science and Technology Medal Foundation (NSMTF) panelist, “*Science Unscripted: Conversation with AI Experts*,” UMBC. The audience included a group of specially selected high-school students, Oct. 2019
- UMBC Information Systems Department Research Seminar, Sept. 2019
- University of Southern California (USC) Information Sciences Institute (ISI), Artificial Intelligence Seminar, August 2019
- Escape Velocity 2019 by the Museum of Science Fiction, Gaylord National Resort & Convention Center, National Harbor, Washington, D.C., May 2019
- RIKEN Center for Advanced Intelligence Project (AIP), Tokyo, Japan, April 2019
- University of Baltimore School of Law, Legal Hackers Baltimore meeting, March 2019
- Information Theory and Applications (ITA) Workshop, San Diego, CA, Feb. 2019
- Maryland State Bar Association Conference, Towson, MD, Feb. 2019
- Johns Hopkins University, Applied Physics Laboratory (APL) Seminar, Dec. 2018
- UMBC, guest lecture for Introduction to Data Science class, Dec. 2018
- Johns Hopkins University, Center for Language and Speech Processing (CSLP) Seminar, Nov. 2018
- Artificial Intelligence Maryland (MD-AI) Seminar, Emerging Technology Centers (ETC), Baltimore, MD, Nov. 2018
- Federal Trade Commission (FTC) Hearing on Artificial Intelligence and Algorithmic Decision Tools, Howard University School of Law, Washington, DC, Nov. 2018
- AI/ML PhD Student Open Seminar, *Latent Variable Modeling + AI Fairness + YOU!*, Department of Information Systems, UMBC, Oct. 2018

- AAAI Fall Symposium on AI for Government and Public Sector Applications, Arlington, VA, Oct. 2018
- Networking and Information Technology Research and Development (NITRD) Interagency Working Group on Privacy R & D, National Coordination Office, Washington, DC, Sept. 2018
- George Mason University, UMBC Group Visit on Cognitive Computing, Sept. 2018
- National Institute of Standards (NIST) Gaithersburg, AI Community of Interest Seminar, June 2018
- UMBC, ACM Faculty Seminar, April 2018
- UMBC, Discussant for a screening of the AlphaGo documentary, Feb 2018
- AI/ML PhD Student Open Seminar, *Latent Variable Modeling for Data Big and Small, with Perspectives on the Big Data Revolution*, Department of Information Systems, UMBC, Oct. 2017
- UMBC, March 2017
- Oregon State University, March 2017
- Tulane University, March 2017
- UC Riverside, March 2017
- Boston College, Feb. 2017
- California State University – Long Beach, Feb. 2017
- UCSD, Artificial Intelligence Seminar, Jan. 2017
- USC, Artificial Intelligence Seminar, May 2016
- UCSD, Angela Yu’s lab, April 2016
- UCI, Center for Machine Learning and Intelligent Systems Seminar, Jan. 2016
- UCSD, Artificial Intelligence Seminar, Nov. 2015
- Banff International Research Station (BIRS), New Perspectives for Relational Learning Workshop, April 2015
- eBay Research Labs, August 2014

Media Activities (radio or television interviews, for example)

- Featured in Inquiring Minds Research Publication, UMBC Research and Creative Achievement, segment titled “*Working to Improve Fairness of AI Systems*,” March 2023
- James Foulds and Shaniah Reece. WJZ News (prime-time), Baltimore’s CBS News affiliate, segment on “Finding Equity and Unbias through Artificial Intelligence,” Feb. 2023

- Amber Taylor (Host), Earl Young, James R. Foulds, Sonia Kumar (contributors). ACLU Maryland Podcast: Racism, Algorithms, and the Fight for Redemption, Oct. 2019

SERVICE TO THE DEPARTMENT, UNIVERSITY, COMMUNITY AND PROFESSION

Service to the Department

- IS Department MS Advising (course approvals and course selection advice for between around 10 – 30 MS students per semester), Spring 2018 – present
- IS Department Graduate Committee (IS on Campus), Spring 2023
- IS Department Graduate Committee (HCC), Spring 2023
- IS Department Graduate IS Admissions Committee, Spring 2023
- IS Department Graduate Committee (IS on Campus), Fall 2022
- IS Department Graduate Committee (HCC), Fall 2022
- IS Department Graduate IS Admissions Committee, Fall 2022
- IS Department Research Committee, Spring 2022
- IS Department Vision Committee (developing vision and mission statements for the department), Spring 2022
- IS Department Student Research Symposium. Co-Organizer. Spring 2022.
- IS Department Research Committee, Fall 2021
- IS Department Vision Committee (developing vision and mission statements for the department), Fall 2021
- IS Department Student Poster Day. Co-Organizer. Judge of Best Poster Contest. Spring 2021.
- IS Department Research Seminar Organizer, Spring 2021.
- IS Department Research Committee, Spring 2021.
- IS Department Search Committee, UMBC Postdoctoral Fellows For Faculty Diversity, Fall 2020.
- IS Department Research Seminar Organizer, Fall 2020.
- IS Department Research Committee, Fall 2020.

- IS Department Research Seminar Organizer, Spring 2020.
- IS Department Research Committee, Spring 2020.
- IS Department Research Seminar Organizer, Fall 2019.
- IS Department Research Committee, Fall 2019.
- IS Department Tenure-Track Search Committee, Fall 2019 – Spring 2020.
- IS Department AI/KM Tenure-Track Search Committee, Fall 2018 – Spring 2019.

Service to the University

- Committee Member, Research and Creative Achievement Council (RCAC), Fall 2023 – Spring 2026
- Committee Member, Selection Committee, UMBC Strategic Awards for Research Transitions (START), Spring 2023
- Subcommittee Co-Chair, UMBC Bold: The Research Enterprise. A Campus Conversation, Spring 2023
- Committee Member, Search Committee, Associate Dean for Academic Programs and Learning. Chair: Erin Lavik. Spring 2021.
- Committee Member, Launch Committee (COEIT initiative providing mentorship for new tenure-track faculty), Md. Osman Gani, Summer 2020 – Spring 2021

Service to the Community

- Mentor, Baltimore Polytechnic Institute (BPI) Ingenuity Research Practicum Program. High school student mentored: Gavin Tantleff. Summer 2022 – present
- Mentor, Baltimore Polytechnic Institute (BPI) Ingenuity Research Practicum Program. High school student mentored: Elyjah Bassford. Summer 2020 – Summer 2021

Service to the Profession

Conference Organization

- Co-Organizer, Workshop on Including Ethics in Data Science Pedagogy (EDSP 2019)
- Workflow Chair, Artificial Intelligence and Statistics (AISTATS) 2019 conference
- Co-Chair, Information Theory and Applications (ITA) workshop 2017
- Co-Chair, Information Theory and Applications (ITA) workshop 2016

Journal Special Edition Editor

Shimei Pan and James Foulds (co-editors), Bulletin of the IEEE Technical Committee on Data Engineering 44:(4) Special Issue on Responsible AI and Human-AI Interaction

James Foulds and Shimei Pan (co-editors), Bulletin of the IEEE Technical Committee on Data Engineering 43:(4) Special Issue on Interdisciplinary Perspectives on Fairness and Artificial Intelligence Systems

Book Reviewing

- Morgan Kaufmann / Elsevier. *Present edition reviewer of I. Witten et al., Data Mining: Practical Machine Learning Tools and Techniques (4th edition)*

Grant Proposal Reviewing

- NSF, panel reviewer (1 panel), 2022
- George Mason University, Office of Research Innovation and Economic Impact (ORIEI): Take it to the Next Level – Multidisciplinary Research Seed Funding Initiative in Sustainability, Biohealth Digital Innovation, proposal reviewer
(The winning projects each received funding of up to \$100K each plus tuition and health insurance for one full-time doctoral student per project, for an award duration of 12 to 18 months), 2022
- NSF, panel reviewer (1 panel), 2021
- NSF, panel reviewer (1 panel), 2020
- NSF, panel reviewer (1 panel), 2019
- NSF, ad-hoc reviewer (1 proposal), 2019
- George Mason University, Transdisciplinary Centers for Advanced Study panel reviewer.
(The winning centers each received funding of \$125,000 per year for up to 5 years.), 2019
- National Fund for Scientific and Technological Development (FONDECYT) of the Chilean National Commission for Scientific and Technological Research (CONICYT), 2018 FONDECYT Regular Competition, 2017

Journal Reviewing

- Machine Learning Journal (editorial board member) , 2022
- IEEE Trans. Information Theory, 2022
- Machine Learning Journal (editorial board member), 2021
- Statistics and Computing, 2021
- TACL, 2020
- Nature Communications, 2020
- TACL, 2019

- DAMI, 2019
- Nature Communications, 2019
- TACL, 2018
- MLJ, 2017
- TACL, 2017
- FGCS, 2017
- JMLR, 2016 or earlier
- JAIR, 2016 or earlier
- Annals of Applied Statistics, 2016 or earlier
- Neural Computation, 2016 or earlier
- MLJ, 2016 or earlier
- AIJ, 2016 or earlier
- ACM TIST, 2016 or earlier
- TACL, 2016 or earlier
- IEEE TNNLS, 2016 or earlier
- IEEE TKDE, 2016 or earlier
- DAMI, 2016 or earlier
- SWJ, 2016 or earlier
- CAMWA, 2016 or earlier

Conference Program Committee Reviewer

Note: years are when the reviewing was done, which is not necessarily the year that the conference took place.

- AISTATS (**Awarded top reviewer status for being in the top 10% of reviewers for the AISTATS 2023 conference**), 2023
- ICLR, 2023
- ACL Rolling Review, 2022
- AISTATS, 2022
- ECML PKDD Demo Track, 2022

- ICLR, 2022
- NeurIPS, 2022
- ACM FaCCT, 2021
- AISTATS (**Awarded top reviewer status for being in the top 10% of reviewers for the AISTATS 2022 conference**) , 2021
- NeurIPS, 2021
- ICLR, 2021
- NeurIPS Workshop on Privacy in Machine Learning (PRiML), 2021
- ICML (**area chair**) , 2020
- NeurIPS (**awarded free registration as one of the top reviewers**) , 2020
- AISTATS, 2020
- SBP-BRiMS, 2020
- EMNLP, 2020
- ICML (**area chair**), 2019
- AAAI (**Senior Program Committee member**), 2019
- NeurIPS (**awarded free registration as one of the top reviewers**), 2019
- IJCAI, 2019
- NeurIPS Workshop on Privacy in Machine Learning (PRiML), 2019
- NAACL, 2018
- ACL, 2018
- ICML, 2018
- IJCAI, 2018
- UAI, 2018
- WWW, 2018
- BigNet Workshop, 2018
- ICML, 2017
- ICLR, 2017

- IJCAI, 2017
- UAI, 2017
- ACL, 2017
- NIPS, 2016 or earlier
- ICML, 2016 or earlier
- AAAI, 2016 or earlier
- IJCAI, 2016 or earlier
- AISTATS, 2016 or earlier
- UAI, 2016 or earlier
- ACL, 2016 or earlier
- NAACL, 2016 or earlier
- WWW, 2016 or earlier
- ICRA, 2016 or earlier
- IEEE BigData, 2016 or earlier
- NIPS Topic Models Workshop, 2016 or earlier

Programming Contest Problem Sponsor/Problem Reviewer

- ACM South Pacific Region Programming Contest, 2007–2008
- New Zealand Programming Contest, 2007

TEACHING**Courses Taught**

- IS 757 Deep Learning (Spring 2023, UMBC)
- IS 427 Introduction to Artificial Intelligence: Concepts and Applications (Spring 2022, UMBC)
- IS 698/800 Special Topics in IS: Probabilistic Machine Learning (Fall 2021, UMBC)
- IS 603 Decision Making Support Systems (Fall 2021, UMBC)
- IS 603 Decision Making Support Systems (Spring 2021, UMBC)
- IS 733 Data Mining (Fall 2020, UMBC)

- IS 428 Data Mining Techniques and Applications (Fall 2020, UMBC)
- IS 733 Data Mining (Spring 2020, UMBC)
- IS 428 Data Mining Techniques and Applications (Fall 2019, UMBC)
- IS 733 Data Mining (Fall 2019, UMBC)
- IS 733 Data Mining (Spring 2019, UMBC)
- IS 698/800 Special Topics in IS: Probabilistic Machine Learning (Fall 2018, UMBC)
- IS 733 Data Mining (Spring 2018, UMBC)
- IS 733 Data Mining (Fall 2017, UMBC)
- CSE291D Latent Variable Models (Spring 2017, UCSD)
- CSE291D Latent Variable Models (Spring 2016, UCSD)

Teaching Assistant

Teaching Assistant, University of Waikato, Hamilton, New Zealand. I was a teaching assistant for the following courses one or more times between 2005–2007

- Logic and Computation
- Critical Reasoning
- Introduction to Logic
- Logic and Programming
- Introduction to Computer Science 1
- Introduction to Computer Science 2